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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,297	11/14/2001	Hiroaki Sakai	35.C15938	6905

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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT PAPER NUMBER

2852

DATE MAILED: 09/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/987,297	SAKAI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Susan S. Lee	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The indicated allowability of claims 1-7 is withdrawn in view of the newly discovered reference(s) to Mizoo et al. Rejections based on the newly cited reference(s) follow.

#### ***Drawings***

Figures 8, 14 and 15 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

#### ***Specification***

The title of the invention is objected to because it contains claim language such as "comprising" and "means".

Correction is required.

#### ***Claim Objections***

Claims 3 and 4 are objected to because of the following informalities:

As to claim 3, lines 3-4, "developer regulating member is brought into contact with said developer holding member on the upstream side of said image forming apparatus" is unclear. The image forming apparatus is the whole copier. How is this possible?

As to claim 4, line 42, " ) " , closing or end parenthesis should be deleted.

Appropriate correction is required.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3-5, and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 29-33 of U.S. Patent No. 6,537,715 in view of Ishiyama (900).

US 6,537,715 discloses the instant invention's toner having weight-average particle diameter of from 5 to 12  $\mu\text{m}$  as described in claim 1, column 58, lines 21-26; the circularity  $a=L0/L$  (column 58, line 57); the toner either satisfy a) which reads on the instant invention's portions i) the cut rate  $Z \leq 5.3 \times X$  (column 58, line 66); cut rate represented by  $Z = (1-B/A) \times 100$  (column 59, lines 1-3) which reads on the instant invention's expression (3); a number based cumulative value Y of particles with a circularity a of 0.950 or higher  $\geq \exp 5.51 \times X^{-0.645}$  which reads on the instant invention's expression (4) (note column 59, lines 11-19); or b) which reads on the instant invention's portions ii) where cut rate  $Z > 5.3 \times X$  which reads on the instant invention's

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expression (5) and number based cumulative value Y of particles with a circularity a of 0.950 or higher  $\geq \exp 5.37 \times X^{-0.545}$  which reads on the instant invention's expression (6). Note column 59, lines 22-40. Claim 33 discloses the same toner and its characteristics as described in claim 1 of US 6,537,715 and in addition discloses an electrostatic image bearing member and developing device being supported in one unit to constitute a process cartridge. This reads on the instant invention's electrostatic image bearing member and developing device. Claims 29 and 30 disclose the same toner and its characteristics as discussed above in claim 1 of US 6,537,715, including an electrostatic latent image formed on an electrostatic-image bearing member, a developing means, and in claim 30 discloses a contact charging means to which a bias has been applied. In claim 31, a developing means has a developing sleeve which reads on the instant invention's developer holding member. Note column 61, line 38-column 62, line 67.

US 6,537,715 differs from the instant invention's by not claiming a developer regulating member and a peripheral speed of the electrophotographic photosensitive member is 150 mm/second or more.

Ishiyama discloses a photosensitive drum 1 rotating at a speed of 24 to 400 mm/sec. The developing apparatus 140 has a developer holding member 142 with an elastic blade 146 as a developer layer thickness on the developer holding member. Also, in fig. 7 shows the free end of the blade 146 brought into contact with the developer holding member 142 on the upstream side of the image forming apparatus relative to the developing section in the rotation direction of the developer holding

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member 142 forming a thin layer of the developer on the developer holding member's 142 surface. Note column 4, lines 37-44 and column 17, lines 5-15. As to claim 5 of the instant invention, the process cartridge 20 is one unit with the developing apparatus 140 which is also a cleaning a cleaning means. Note column 25, lines 34-37.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of US 6,537,715 with that of Ishiyama so prevention of fogging of images can be obtained.

Claims 1, 2, 4, and 6 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 29-33 of U.S. Patent No. 6,537,715 in view of Tamura et al. (704).

US 6,537,715, as discussed above, differs from the instant invention by not disclosing a speed of the electrophotographic photosensitive member and the peripheral speed ratio of the developer holding member to the electrophotographic photosensitive member.

Tamura et al. discloses the speed of the photoreceptor is 10 to 200 mm/s and the development sleeve is 15 to 500 mm/s. Therefore, the speed ratio of the photoreceptor and the development sleeve is 1.5 to 3.5 *or* as reversed, the speed ratio of the development sleeve and the photoreceptor is 0.28 to 0.66. Note column 10, lines 23-27 and lines 53-56. This range reads on the instant invention's range of 1.2 or less.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of US 6,537,715 with that of Tamura et al. to obtain optimal developing.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 1, 3-5, and 7 are rejected under 35 U.S.C. 103(a) as being obvious over Mizoo et al. (715) in view of Ishiyama (900).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Mizoo et al. discloses in Fig. 21 a detachable process cartridge 750 with an electrophotographic photosensitive member or drum 701, an charging means or roller 742, a developing means 709 with a developing holding member or sleeve 704 and an elastic blade 711a for regulating the layer thickness of the toner layer on the developing holding member 704, and a cleaning means or cleaner 708. Note column 41, lines 21-



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42. As to claims 3 and 7, since the developing regulating member or elastic blade 711a is regulating the layer thickness of the toner layer and is well known in the art that from fig. 21, the developing holding member must rotate counter clockwise so that the toner layer will be in contact with the photosensitive member 701 at a developing section.

Thus, it is clearly shown in fig. 21 that the free end of the developing regulating member 711a is in contact with the developer holding member 704 on an upstream side of the developing section between the photosensitive member 701 and the developing holding member 704. Mizoo et al. also discloses the instant invention's toner having weight-average particle diameter of from 5 to 12  $\mu\text{m}$  as described in column 12, lines 13-18; the circularity  $a=L0/L$  (column 12, line 43); the toner either satisfy a) which reads on the instant invention's portions i) the cut rate  $Z \leq 5.3 \times X$  (column 58, line 66); cut rate represented by  $Z = (1-B/A) \times 100$  (column 12, line 58) which reads on the instant invention's expression (3); a number based cumulative value Y of particles with a circularity a of 0.950 or higher  $\geq \exp 5.51 \times X^{-0.645}$  which reads on the instant invention's expression (4) (note column 13, lines 6-9); or b) which reads on the instant invention's portions ii) where cut rate  $Z > 5.3 \times X$  which reads on the instant invention's expression (5) and number based cumulative value Y of particles with a circularity a of 0.950 or higher  $\geq \exp 5.37 \times X^{-0.545}$  which reads on the instant invention's expression (6). Note column 13, lines 12-29. This reads on the instant invention's electrostatic image bearing member and developing device. Claims 29 and 30 disclose the same toner and its characteristics as discussed above in claim 1 of US 6,537,715, including an electrostatic latent image formed on an electrostatic-image bearing member, a

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developing means, and in claim 30 discloses a contact charging means to which a bias has been applied. In claim 31, a developing means has a developing sleeve which reads on the instant invention's developer holding member. Note column 61, line 38-column 62, line 67.

Mizoo et al. differs from the instant invention's by not showing a peripheral speed of the electrophotographic photosensitive member is 150 mm/second or more.

Ishiyama discloses a photosensitive drum 1 rotating at a speed of 24 to 400 mm/sec. Note column 4, lines 37-44 and column 17, lines 5-15.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mizoo et al. with that of Ishiyama so prevention of fogging of images can be obtained.

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The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and

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reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Mizoo et al., as discussed above, differs from the instant invention by not disclosing a speed of the electrophotographic photosensitive member and the peripheral speed ratio of the developer holding member to the electrophotographic photosensitive member.

Tamura et al. discloses the speed of the photoreceptor is 10 to 200 mm/s and the development sleeve is 15 to 500 mm/s. Therefore, the speed ratio of the photoreceptor and the development sleeve is 1.5 to 3.5 *or* as reversed, the speed ratio of the development sleeve and the photoreceptor is 0.28 to 0.66. Note column 10, lines 23-27 and lines 53-56. This range reads on the instant invention's range of 1.2 or less.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mizoo et al. with that of Tamura et al. to obtain optimal developing.


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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Naka et al. discloses a toner with at least a bonding resin and coloring agent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 703-308-2138. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 703-308-1373. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Susan S. Lee  
Primary Examiner  
Art Unit 2852

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